

of the infection. The reviewer had occasion to open the abdomen of a young primipara who had suffered from fever after childbirth with indefinite symptoms. Typical puerperal sepsis could be excluded. There was diffuse abdominal tenderness without fixation of the uterus and without a definitely localized painful point upon pressure. The appendix was found reddened, thickened, edematous and without perforation. At the beginning of the descending portion of the colon beneath the peritoneal covering were several areas of laceration which could be plainly made out. The entire colon was larger than normal, reddened and the lymphatics leading from the colon were enlarged. There were some recent and light adhesions between coils of intestine and the omentum. A Mickulicz bag was introduced into the bottom of the pelvis and the upper portion of the wound was closed. The patient made a tedious but complete recovery. In this case, the Widal reaction was negative, the urine was free from colon bacilli and the case was considered one of colon bacillus infection of the appendix and bowel itself. The appendix was removed and on examination found to contain colon bacilli and to be in a condition of acute inflammation.

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## OPHTHALMOLOGY

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UNDER THE CHARGE OF

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**Effect of Accommodation upon the Viscosity of the Lens.**—LANCASTER and WILLIAMS (*Ophthalmoscope*, March, 1915, p. 112) have made a series of experiments upon the position of the punctum proximum, from which they infer that, when during accommodation the zonula is relaxed, there is an initial change which occurs quickly (less than a second), but that the effect does not stop there; the lens continues to become more convex, though at a slower and slower rate. They believe that the force which brings about the increased convexity of the lens is opposed by another force which it overcomes only gradually. There is a time element. They call the first force the elasticity of the lens, capsule, etc.; for the second they suggest the name viscosity, for the time element is the essence of viscosity.

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**Complete Disappearance of an Eyeball following a Birth Injury.**—HARDY (*Amer. Jour. Ophthalmol.*, February, 1915, p. 33) observed, in a child of eight years, an empty socket exactly like that resulting from an ordinary enucleation; its depth in fact was somewhat greater. The mother when questioned made the surprising statement that no operation had ever been done. The eyeball had been injured at birth by the

forceps, and according to her understanding, the globe had been ruptured, which rupture must have occurred posterior to the cornea, as from her statement, iris and cornea had the same appearance as the other eye. No stump or remnant of the globe could be seen or felt at the apex of the orbit. The eye had completely disappeared. All the evidence was against an ophthalmia. Complete absorption of every part of a perfectly formed eye even after a destructive injury at parturition is, to say the least, an extraordinary occurrence.

**The Use of Optochin in Various External Diseases of the Eye.**—STENGELE (*Klin. Monatsbl. f. Augenhk.*, April-May, 1915, p. 446) reports upon the extraordinary curative effects of this agent in certain diseases of the eye, especially pneumococcal infection, diseases of the lacrimal sac and affections in which photophobia is favorably influenced by the remedy. As usually employed in 5 per cent. solution, it is apt to be very unpleasant even increasing the irritability of the eye for a short time; such irritation may be prevented by a prior instillation of a 5 per cent. solution of cocaine; in 1 per cent. solution it is borne alone without cocaine. Fresh solutions or those a few days old, are more efficient than older ones; solutions three to four weeks old are almost inert. Optochin is a new quinin derivative known scientifically as ethylhydrocuprein. Corneal ulcers from pneumococcal infection treated every hour or two by 1 per cent. solution of optochin yield surprisingly rapidly to the remedy. The same agent is of great service in corneal ulcers accompanied by disease of the lacrimal sac. The instillation of a 1 per cent. solution of optochin into the conjunctival sac in combination with injection of the lacrimal passages with the same agent simplifies the treatment very decidedly. The secretion of the blepharitis of the lacrimal sac rapidly ceases so that extirpation with subsequent bandaging can be safely performed. But irrigation of the passages with optochin can not replace extirpation in ectasia of the sac; sooner or later renewed infection will require operation. The effect of the drug in 5 per cent. solution is truly surprising in the various external ocular diseases, especially scrofulous ophthalmia. It is astonishing how children who have been unable to open their eyes for days and weeks, quite suddenly open them freely, and the photophobia is permanently relieved after a short period of treatment. The drug may act slowly and may even fail entirely in such cases of phlyctenular disease as are complicated by fissures of the external canthus; the latter should be brought to heal before the application of the optochin. It is an interesting question how this drug relieves photophobia so promptly in some cases and fails in others. Stengele ascribes the curative effect to its bactericidal action and not to simple anesthesia as has been assumed. It is a matter of further investigation to determine against which species of bacteria besides pneumococci the drug is effective.

**Interesting Note upon the History of the Fundus Reflex, Bearing upon the Invention of the Ophthalmoscope.**—Helmholtz in his monumental work *Physiological Optics*, first published in 1856, and also in his *Description of an Ophthalmoscope* in 1851, and Mauthner likewise in his *Ophthalmology*, 1868, ascribed priority in the matter of

researches upon the fundus reflex as bearing upon the invention of the ophthalmoscope to Cumming, 1846, and von Brucke, 1847, and the host of subsequent writers upon the ophthalmoscope without exception have repeated the statements of these masters. HIRSCHBERG (*Centralbl. f. prak. Augenh.*, April, 1915, p. 81), that most erudite historian of ophthalmology, calls attention to a passage in a small work in Latin by Purkinje, published in 1823, in which he not only describes the reflex as visible by light reflected from his own myopic lenses (he was himself myopic 6D) into the eyes of a dog and also of man, but actually examined the fundus of a model eye which he constructed, filled with clear and turbid water, and recommended the method for practical diagnostic purposes. But a lifetime had to elapse before his recommendation bore fruit. In this respect, the lot of Purkinje resembled that of one still greater, Thomas Young.

**Synchysis Scintillans.**—WESTPFAHL (*Arch. f. Augenh.*, 1915, lxxviii, 1) analyzes 40 cases of this affection observed in the Würzburg clinic. In 36 the condition was unilateral. Its character as a mark of degeneration was shown both by its occurrence in advanced years with other senile changes, and from the circumstance that when it occurred earlier, it was accompanied by degeneration of other portions of the eyeball (retinal detachment, phthisis bulbi). In about half the cases the fundus was normal and the visual acuity good; this excludes any toxic action of cholesterol products which may be present in the vitreous, upon the retina; 25 per cent. of the cases showed more or less advanced senile opacities of the lens, although this may have been a coincidence as the average age of the subjects in this series was seventy years, while the average age of all the cases of synchysis was sixty-four years. Of the remaining cases in which the synchysis was accompanied by some other internal disease of the eye, the latter could be regarded as the cause of the vitreous opacities in less than half.

**The Intra-ocular Pressure and Tension of the Eye.**—In a lengthy publication upon the above subject, running through three numbers of the *Ophthalmoscope* (from April, p. 182, through May, p. 237, and concluded in July, p. 327), ELLIOTT summarizes his conclusions as follows: 1. In dealing with the physical conditions governing the behavior of the intra-ocular fluid, as it passes into and out of the eye, it must be borne in mind that we are dealing with a body of "moving water," and that the laws which come into play are those of hydrodynamics and not those of hydrostatics. 2. The question whether the intra-ocular fluid is poured out by an act of secretion, or by a process of pressure filtration is still sub judice; probably both take part. The question, however, is not of great practical importance. 3. The general blood-pressure, as it rises and falls, tends to exert a corresponding influence upon the intra-ocular pressure. This influence may, however, be masked or even counteracted by a number of other factors. 4. The venous exit pressure throughout the eye is probably always a little in excess of the intra-ocular pressure. 5. The most probable explanation by which the intra-ocular fluid finds its way into the canal of Schlemm and into the veins of the iris is that the action is osmotic in nature although there are difficulties in understanding the problem in all its bearings.

**Does Sympathetic Amblyopia Exist?**—This term has been employed to describe what has been regarded as a purely functional weakness of vision of one eye occasioned by conditions of irritation in the other and which disappears upon cessation of the latter. A number of such cases have been recorded in literature. KEUTEL (*Klin. Monatsbl. f. Augenh.*, Feb.-Mar., 1915, p. 250) subjects 25 of the most striking cases to a critical review from which he comes to the conclusion that none of them can withstand thoroughgoing criticism. He maintains that sympathetic ophthalmia does not exist and that the expression should be stricken from ophthalmic terminology. Those cases where, following enucleation, the visual acuity rapidly improves, are explicable in the majority of cases by the circumstance that the irritative symptoms—photophobia and lacrimation—disappear, symptoms which influence the visual acuity mechanically or functionally; or else suggestion plays its important part in bringing about a rapid improvement of the visual acuity with the accompanying contraction of the fields.

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## PATHOLOGY AND BACTERIOLOGY

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**Caseous Tuberculosis of the Aorta.**—ZRUNEK (*Cent. f. Path.*, 1914, xxv, 577) reports a case of false aneurysm of the abdominal aorta. This was found in a woman, aged twenty-seven years, in the region of the celiac axis. The aneurysm was of large size and projected between the stomach and liver. The aneurysmal sac was mainly composed of a fibrin clot contained within a thin sheet of tissue which had ruptured at one point, with extensive hemorrhage in the abdomen. About the communication between the aorta and the aneurysm the tissues were involved by caseous tuberculosis. The tuberculous process had attacked the aorta from without, probably by invasion from neighboring lymph glands. Curiously, a miliary tuberculosis was present only in the liver and spleen.

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**Concerning Substances Inhibiting Coagulation Found in the Placenta and Female Genitalia.**—Many explanations have been given for the lessened coagulability of the menstrual blood. FUGII (*Biochem. Ztschr.*, 1914, lxvi, 368) has again studied the subject from the attitude that the coagulation property of the blood is inhibited, rather than, as is